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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,053

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Dov Avni

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4577

49443 7590 12/23/2009
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EXAMINER

BRUTUS, JOEL F

ART UNIT

PAPER NUMBER

3768

MAIL DATE

DELIVERY MODE

12/23/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,053	Applicant(s) AVNI ET AL.	
	Examiner JOEL F. BRUTUS	Art Unit 3768	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 81-85,90,91 and 97-100 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 81-85,90,91 and 97-100 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/13/2009 and 7/6/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 81, 85 and 97-100 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cline et al (US Pat: 6,462,770).

Regarding claims 81 and 85, Cline et al teach an imaging system 10 for white light and fluorescence endoscopy that is pertinent to the claimed invention. Cline et al further teach a control center includes a central processing unit programmed to control operation of the system [see column 4 lines 63-67]. Cline et al teach an automatic gain control circuit that adjusts the gain of the imaging system [see column 3 lines 12-15]. Cline et al teach the invention includes a mode switching mechanism to switch between white light and fluorescence [see column 3 lines 37-40].

Cline et al also teach that the images may be recorded for later review and analysis [see column 6 lines 1-5].

Cline et al disclose the video signals are supplied to a set of counters that determine a total period of time during which the video signal has a magnitude that

Art Unit: 3768

exceeds reference threshold (set individually for each counter). Based upon the outputs of the counters, a decision tree algorithm determines if the gain of the imaging system or light source intensity should be increased or decreased [see column 4 lines 48-55].

In the alternative, one with ordinary skill in the art at the time the invention was made would have been motivated to use the counter to determine an amount of white light and control the image system gain level; for the purpose of obtaining an optimal image.

Regarding claims 97-100, all other limitations are taught as set forth by the above teaching.

Cline et al teach an intensity control driver receive a signal from light source control in order to move the intensity control in and out of the light path [see column 6 lines 48-52 and column 7 lines 1-10]. The light intensity implies the environmental parameter (emphasis added). Cline et al teach the control center indicates whether the intensity of light should be increased or decreased; and adjust intensity of white light illumination [see column 7 lines 5-11]. The intensity control is used as the environmental measuring tool (emphasis added).

In the alternative, one with ordinary skill would use the computer motherboard that allows an operator to change operating parameters of the imaging system as taught by Cline et al [see column 5 lines 60-67 and column 6 lines 8-25]; for the purpose of using a desired operating parameter.

Art Unit: 3768

3. Claim 82-84 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cline et al (US Pat: 6,462,770) in view of Alfano et al (US Pat: 6,240,312).

Regarding claims 82-84, all other limitations are taught as set forth by the above teaching.

Cline et al don't teach a photodetector as a light measuring element.

However, Alfano et al teaches a vivo device that comprises a light source, a photodetector [see fig 11 b].

Therefore, one with ordinary skill in the art at the time the invention was made would have been motivated to combine these references by measuring light using a photodetector; in order to measure light with great accuracy.

4. Claims 90-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cline et al (US Pat: 6,462,770) in view of Nagasaki et al (US Pat: 4,631,582

Regarding claims 90-91, all other limitations are taught as set forth by the above teaching.

Cline et al don't explicitly mention controlling device's gain factor due to a difference.

However, Cline teach a time –over-threshold counter and compare detected intensities to a number of reference thresholds [see abstract, column 4 lines 45-55]

However, Nagasaki et al further teach comparing a measured or recorded light with a preset level or reference signal [see above]; a light controller is connected to the output of comparators for controlling the amount of light emitted from the illuminating

Art Unit: 3768

source based on the control signal [see abstract]. Nagasaki et al teaches imaging period such as during the green signal period with the strongest spectral luminous efficiency, the light control occurs with a larger decrease in the brightness level than for the red signal and blue signal [see column 6 lines 3-30].

Therefore, one with ordinary skill in the art at the time the invention was made would have been motivated to combine these references by using comparing detecting white light with threshold values to control a device gain factor; for the purpose of enhancing signal to noise ratio.

Response to Arguments

5. Applicant's arguments with respect to claims 81-85, 90-91 and 97-100 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

Art Unit: 3768

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOEL F. BRUTUS whose telephone number is (571)270-3847. The examiner can normally be reached on Mon-Fri 7:30 AM to 5:00 PM (Off alternative Fri).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (571)272-0823. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3768

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. F. B./
Examiner, Art Unit 3768

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768